

FORM PTO-1449

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)

637.0003USQ

Applicant

Singer et al.

Filing Date

January 12, 2004

Application Number

~~10/755,846~~

Group Art Unit

2881

U. S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
|----------|--------------------|----------|--------------------------|-------|----------|-------------|----|
| | | | | | | YES | NO |
| <i>n</i> | 0 955 641 | 11/10/99 | Europe | | | | X |
| <i>n</i> | 05045605 | 2/26/93 | Japan (English Abstract) | | | X | |
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

EP 00115730.4-2222, European Search Report, dated January 19, 2005

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

10/253 026

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|---|--|---|
| INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) DEC 06 2004 PATENT & TRADEMARK OFFICE | Docket Number (Optional) 2830 | Application Number 10/725,846 |
| | Applicant(s) WOLFF, S., ET AL <i>Steger et al.</i> | |
| | Filing Date 12/02/2003 | Group Art Unit 2801 |

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|----------------------|-----|-----------------|------------|--------------|-------|----------|-------------------------------|
| <i>W</i> | | 2,748,006 | 05/29/1956 | KREIDL ET AL | | | |
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U.S. PATENT APPLICATION PUBLICATIONS

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FOREIGN PATENT DOCUMENTS

| | REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
|----------|-----|-----------------|------------|---------|-------|----------|-------------|----|
| | | | | | | | YES | NO |
| <i>W</i> | | 2 320 023 A | 06/10/1998 | GB | | | ✓ | |
| <i>W</i> | | 196 50 692 A1 | 06/19/1998 | DE | | | ✓ | |
| <i>W</i> | | 973 350 | 01/28/1960 | DE | | | | ✓ |
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

CUSTOMER NO.: 27623

Sheet 1 of 7

FORM PTO-1449

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10/755,846

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01/12/2004

Group Art Unit

2881

(Use several sheets if necessary)

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U. S. PATENT DOCUMENTS

| EXAMINER PATENT & TRADEMARK OFFICE | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------------------------|--------------------|-------|-----------------|-------|----------|-------------------------------|
| <i>N</i> | 5,581,605 | 12/96 | Murakami et al. | 378 | 84 | |
| <i>N</i> | 6,195,201 | 02/01 | Koch et al. | 359 | 366 | |
| <i>N</i> | 6,064,072 | 05/00 | Partlo et al. | 250 | 504R | |
| <i>N</i> | 5,512,759 | 04/96 | Sweatt | 250 | 492.1 | |
| <i>N</i> | 6,396,068 | 05/02 | Sweatt et al. | 250 | 504R | |
| <i>N</i> | 6,353,470 | 03/02 | Dinger | 355 | 71 | |
| <i>N</i> | 2002/0186811 | 12/02 | Weiss et al. | 378 | 34 | |
| <i>N</i> | 2003/0095623 | 05/03 | Singer et al. | 378 | 34 | |

FOREIGN PATENT DOCUMENTS

| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
|----------|---------------------------------|-------|---------|-------|----------|-------------|----|
| | | | | | | YES | NO |
| <i>N</i> | EP 1434240 A1 (99106348.8) | 6/04 | Europe | | | | X |
| <i>N</i> | WO 99/57732 (PCT/EP99/02999) | 11/99 | PCT | | | | X |
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

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|----------|--|
| <i>N</i> | Marc A. Klosner and William T. Silfvast, "High-temperature lithium metal-vapor capillary discharge extreme-ultraviolet source at 13,5 nm" in Applied Optics, Vol. 39, No. 21, July 20, 2000, pp. 3678 - 3682 |
| | M.A. Klosner et al., Applied Optics Vol. 40, p 4849 - 4851 (2001) |
| <i>N</i> | Hynn-Joon Shin, Dong-Eon Kim, Tong-Nyong Jee, "Soft X-Ray amplification in a capillary discharge" in Physical Review E, Vol. 50, No. 2 (1994), pp. 1376 - 1382 |

EXAMINER

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11/18/05

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Sheet 2 of 7.

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| FORM PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary) | Docket Number (Optional) 637.0003USQ | Application Number 10/755,846 |
| | Applicant Singer et al. | |
| | Filing Date 01/12/2004 | Group Art Unit 2881 |

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| EXAMINER  | DATE CONSIDERED 11/18/05 |
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|---|---|----------|------------------|--|----------|---|----|
| | | | | Applicant Singer et al. | | | |
| | | | | Filing Date 01/12/2004 | | Group Art Unit 2881 | |
| U. S. PATENT DOCUMENTS | | | | | | | |
| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE | |
| <i>12</i> | 4,195,913 | 4/1/80 | Dourte et al. | 350 | 292 | | |
| | 4,294,538 | 10/13/81 | Ban | 355 | 51 | | |
| | 4,389,115 | 6/21/83 | Richter | 355 | 26 | | |
| | 4,651,012 | 3/17/87 | Clark et al. | 250 | 505.1 | | |
| | 4,740,276 | 4/26/88 | Marmo et al. | 204 | 7 | | |
| | 5,148,442 | 9/15/92 | O'Neil et al. | 372 | 71 | | |
| | 5,222,112 | 6/22/93 | Terasawa et al. | 378 | 34 | | |
| | 5,353,322 | 10/4/94 | Bruning et al. | 378 | 34 | | |
| | 5,339,346 | 8/16/94 | White | 378 | 34 | | |
| | 5,361,292 | 11/1/94 | Sweatt | 378 | 34 | | |
| | 5,402,267 | 3/28/95 | Fürter et al. | 359 | 727 | | |
| <i>12</i> | 5,439,781 | 8/8/95 | MacDowell et al. | 460 | 311 | | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
| | | | | | | YES | NO |
| <i>12</i> | 0066295 A1 | 12/8/82 | Europe | | | Yes | |
| <i>1</i> | 0359018 A2 | 3/21/90 | Europe | | | | No |
| | 0939341 A2 | 9/1/99 | Europe | | | Yes | |
| <i>12</i> | 1026547A2 | 8/9/00 | Europe | | | Yes | |
| OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | |
| <i>12</i> | Murphy et al., "Synchrotron Radiation Sources and Condensers for Projection X-Ray Lithography", APPLIED OPTICS, Vol. 32, No. 34, pp.6920-6929 (1 December 1993) | | | | | | |
| <i>12</i> | "Handbook on Synchrotron Radiation", Ernst-Echard Koch ed., pp.140-145, 1098-1111 (1983) | | | | | | |
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| U. S. PATENT DOCUMENTS | | | | | | | |
| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE | |
| | 5,440,423 | 8/8/95 | Ogura | 359 | 365 | | |
| | 5,512,759 | 4/30/96 | Sweatt | 250 | 492.1 | | |
| | 5,581,605 | 12/3/96 | Murakami et al. | 378 | 84 | | |
| | 5,647,664 | 7/15/97 | Hanečka | 362 | 308 | | |
| | 5,669,708 | 9/23/97 | Mashima et al. | 362 | 341 | | |
| | 5,677,939 | 10/14/97 | Oshino | 378 | 34 | | |
| | 5,737,137 | 4/7/98 | Cohen et al. | 359 | 859 | | |
| | 5,755,503 | 5/26/98 | Chen et al. | 353 | 38 | | |
| | 5,896,438 | 4/20/99 | Miyake et al. | 378 | 34 | | |
| | 5,993,010 | 11/30/99 | Ohzawa et al. | 353 | 99 | | |
| | 5,995,582 | 11/30/99 | Terashima et al. | 378 | 34 | | |
| | 6,233,039 | 5/01 | Yen et al. | | | | |
| | 6,310,679 | 10/01 | Shiraishi | | | | |
| | FOREIGN PATENT DOCUMENTS | | | | | | |
| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
| | | | | | | YES | NO |
| | 11044920A | 2/99 | Japan | | | | |
| | 403111806A | 5/91 | Japan | | | | |
| | 406265887A | 9/94 | Japan | | | | |
| | 1072957 | 7/00 | Europe | | | | |
| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | |
| | "The Optics of Spectroscopy", Section 3: "Spectrometer Throughout and Etendue", downloaded from the internet Website: 18/httpwww.jyhoriba.co.uk/jy/oos/oos_ch3.htm | | | | | | |
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|---------------------|--------------------|----------|------------------|-------|----------|-------------------------------|
| <i>W</i> | 2001/0030740 | 10/01 | Mori et al. | | | |
| | 2002/0009178 | Jan 2002 | Dinger et al. | | | |
| | 2002/0041368 | 04/02 | Ota et al. | | | |
| | RE38,438 | 2/04 | Takahashi | | | |
| | 4,688,932 | 8/87 | Suzuki | | | |
| | 5,071,240 | 12/91 | Ichihara et al. | | | |
| | 5,459,547 | 10/95 | Shiozawa | | | |
| | 5,715,084 | 2/98 | Takahashi et al. | | | |
| | 5,796,524 | 8/98 | Oomura | | | |
| | 5,805,356 | 9/98 | Chiba | | | |
| | 5,846,678 | 12/98 | Nishigori et al. | | | |
| <i>W</i> | 5,963,305 | 10/99 | Mizouchi | | | |

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| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE | |
| | 6,081,319 | 6/00 | Ozawa et al. | | | | |
| | 6,198,793 | 3/01 | Schultz et al. | | | | |
| | 6,208,707 | 3/01 | Oshino | | | | |
| | 6,229,647 | 5/01 | Takahashi et al. | | | | |
| | 6,236,449 | 5/01 | Tanitsu | | | | |
| | 6,266,389 | 7/01 | Murayama et al. | | | | |
| | 6,268,904 | 7/01 | Mori et al. | | | | |
| | 6,325,514 | 12/01 | Yamamoto | | | | |
| | 6,335,786 | 01/2002 | Shiraisi | | | | |
| | 6,339,467 | 01/2002 | Sato | | | | |
| | 6,400,794 | 6/02 | Schultz et al. | | | | |
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